



NAC-Science Committee Meeting

July 23, 2012



Doug McCuiston
Director, Mars Exploration Program

Mars Exploration Program

An Integrated, Strategic Program

2001

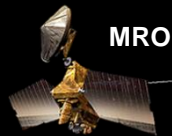


2003



Mars Express
Collaboration

2005



MRO

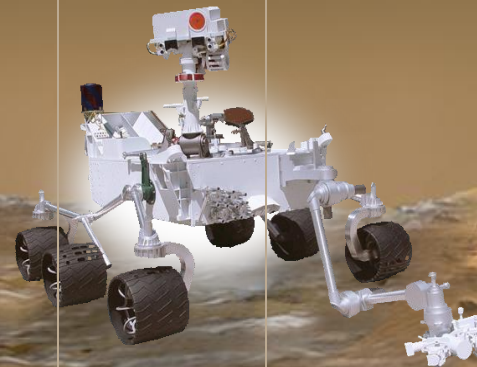
2007



Phoenix
(completed)

2009

MSL/Curiosity



2013



MAVEN

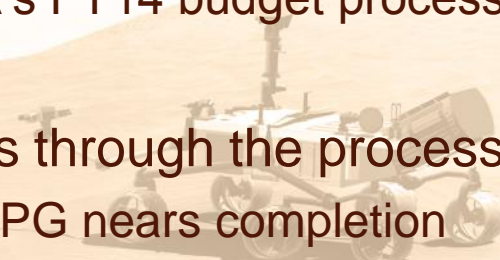
2016 & Beyond

*Mars future
planning
underway!*



Reformulating the MEP to Enable Future Robotic and Human Exploration of Mars

- NASA is strategically aligning its science, human spaceflight, and technology objectives to:
 - Continue America's leadership in exploration of Mars within available budget
 - Enable future missions that will achieve the National Research Council's Planetary Science Decadal Survey goal of sample return
 - Prepare for eventual human expeditions to Mars, next optimal Mars – Earth alignment, in the 2030's
- The Mars Program Planning Group (MPPG) was established by the SMD to create options for the next step in Mars Exploration
 - Final brief to AA/SMD, AA/HEOMD, OCS, OCT in late August
 - MPPG's work is intended to influence NASA's FY14 budget process
- Communication with stakeholders continues through the process
 - Information creation is on a fast pace as MPPG nears completion



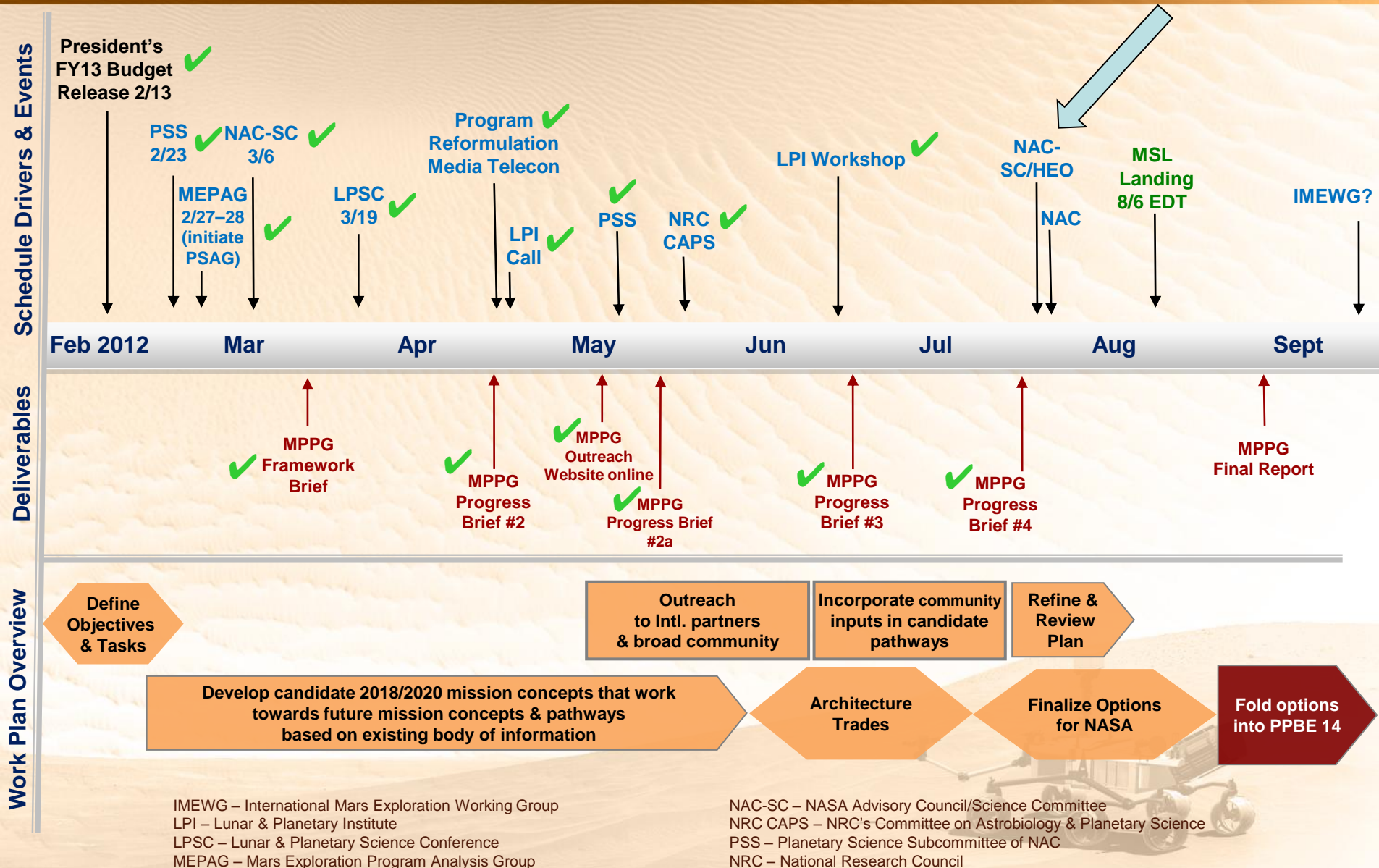
Mars Program Planning Group (MPPG)

- MPPG is providing alternative programmatic options rather than point designs
 - Particular attention to 2018/2020
- Options are consistent with priorities of the 2011 NRC Decadal Survey
 - Tempered by the realities of a budget more constrained than reflected in the National Research Council (NRC) analysis
 - Science-driven with collaboration with Human Exploration & Operations Mission Directorate and Office of the Chief Technologist
- Collaboration with HEOMD is responsive to the President's challenge of human travel to the Mars system in the 2030's
- Enabling technologies are a critical part of a future Mars program
 - LPI workshop was very helpful for MPPG with new technology/technical ideas and concepts
 - OCT is currently funding technologies of benefit to robotic and human Mars exploration (examples: atomic clock, supersonic decelerators)

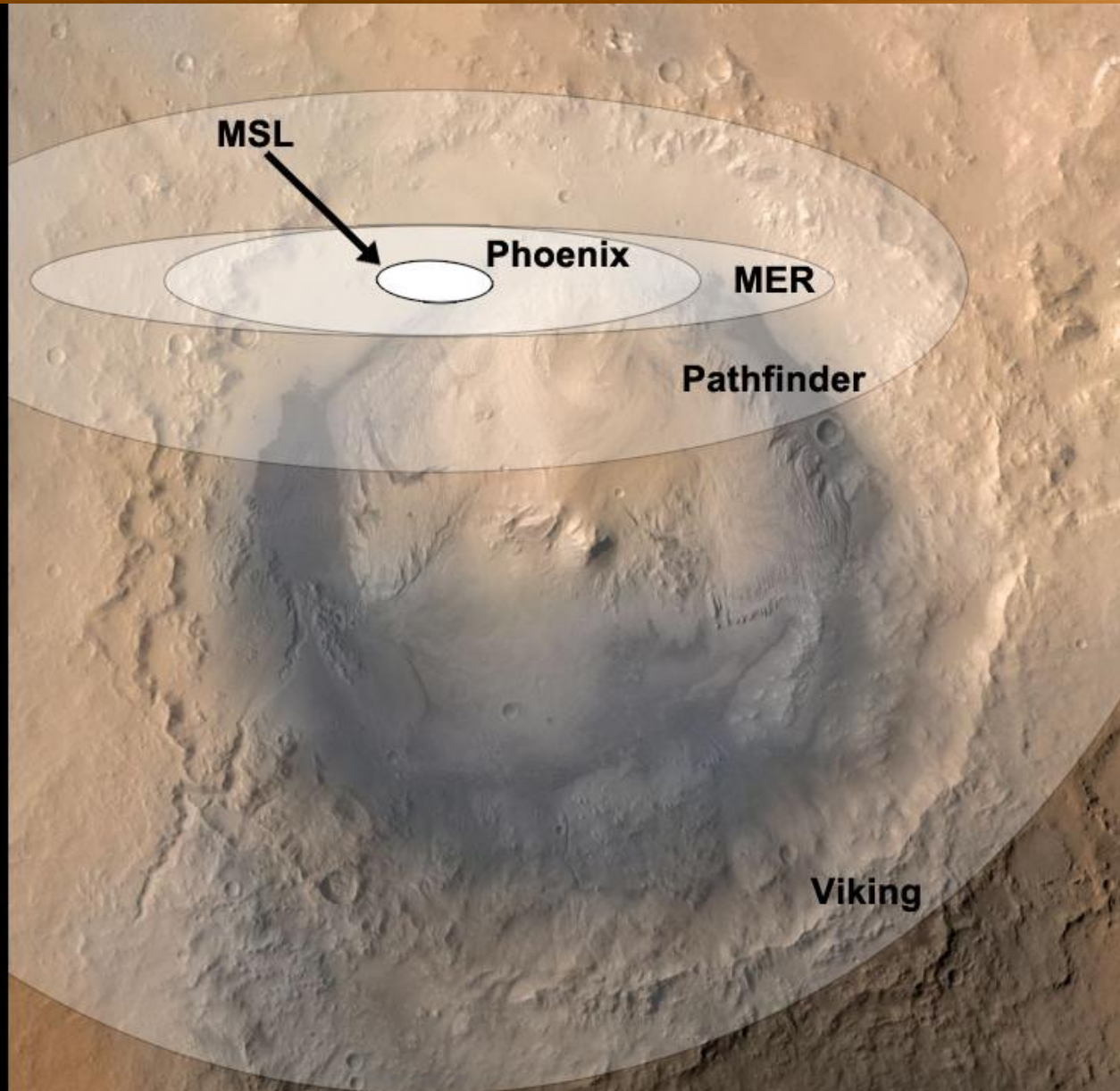


MEP Reformulation Timeline

(dates are approximate)



Advantage of Strategic Technology Investment



Mars Science Laboratory

***Curiosity* –**
12 Days Until Landing!

August 5, 2012 PDT



<http://www.nasa.gov/mars>